

ACCESSION #: 9610100154

LICENSEE EVENT REPORT (LER)

FACILITY NAME: Oyster Creek Unit 1 PAGE: 1 OF 3

DOCKET NUMBER: 05000219

TITLE: Reactor Scram During Condenser Backwashing due to Low  
Vacuum

EVENT DATE: 09/04/96 LER #: 96-07-00 REPORT DATE: 10/04/96

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: N POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR  
SECTION:

50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:

NAME: Bradley Shumaker TELEPHONE: (609) 971-4976

COMPONENT FAILURE DESCRIPTION:

CAUSE: SYSTEM: COMPONENT: MANUFACTURER:

REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On September 4, 1996, the A North Main Condenser was being placed into backwash mode for routine cleaning. The A North inlet valve did not close resulting in a decrease in condenser vacuum. A low vacuum reactor scram occurred as designed. A pressure increase occurred as expected and two of the five Electromatic Relief valves actuated to relieve pressure until the condenser bypass valves opened. The root cause of the event was the valve motor controller which did not close the valve on demand.

The safety significance of this event has been determined to be minimal as all safety systems functioned as designed.

Immediate corrective action was taken to stabilize the plant and subsequently place the reactor in the cold shutdown mode. Prior to restart from the current 16R refueling outage, corrective actions will be taken to repair the controller and evaluate the deficiency for potential generic concerns.

TEXT PAGE 2 OF 3

TEXT PAGE 2 OF 3

#### DATE OF OCCURRENCE

The event occurred on September 4, 1996 at approximately 8:53 PM.

#### IDENTIFICATION OF OCCURRENCE

An automatic reactor scram occurred as the result of a low vacuum condition in the A Main Condenser (EHS Component: COND). The low vacuum condition was a result of the A North circulating water inlet valve (EHS Component: ISV) which did not close during a routine main condenser backwashing evolution. The event is reportable under 10 CFR 50.73(a)(2)(iv).

#### CONDITIONS PRIOR TO OCCURRENCE

The plant was operating at normal temperatures and pressures for full power operation.

#### DESCRIPTION OF OCCURRENCE

On September 4, 1996, it was determined that a condenser backwash would be appropriate to restore condenser cleanliness thereby reducing plant electrical losses. The Oyster Creek Nuclear Generating Station has three parallel main condensers and each condenser has both a north and a south water box. Normal circulating water flow is through all six of the water boxes in parallel. Backwashing the A North condenser requires normal

flow through the A south condenser, continuing through a cross connect valve, reverse flow through the A North condenser, and finally exiting the condenser through the backwash outlet valve.

The backwash operation was initiated by taking the backwash control switches (EIIS Component: HS) to backwash for the A North condenser.

This should close the A South outlet valve, open the cross tie valve, open the north backwash outlet valve, and close the A North inlet and outlet valves. All valve indicator lights indicated valve motion (both open and closed indicators lit), except the A North inlet valve. The bulb in the A North closed indicator was replaced but still did not light. The electrician in the vicinity of the valve motor controller was contacted and directed to manually actuate the closing contactor.

However, before this action could be taken, the reactor low vacuum scram setpoint was reached and a scram occurred. A reactor pressure increase occurred as expected, and two of the five electromatic relief valves actuated to relieve pressure until the condenser bypass valves opened.

TEXT PAGE 3 OF 3

#### APPARENT CAUSE OF OCCURRENCE

The root cause of this event was determined to be the valve motor controller (EIIS Component: SWGR) which did not close the valve on demand.

#### ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

This event has been determined to be of minimal safety significance.

Although the A North inlet valve did not close as expected, all reactor protection circuits performed as designed. Additionally, if the condenser low vacuum scram had not caused the reactor to scram, the turbine trip anticipatory scram would have fulfilled the safety function.

A reactor pressure transient occurred as a result of the turbine trip.

Reactor pressure was controlled by the main condenser bypass valves and the two lower pressure setting Electromatic Relief Valves.

#### CORRECTIVE ACTION

Immediate corrective actions were taken to stabilize the reactor plant and place it in the cold shutdown condition.

Prior to restart, the valve controller will be restored to full operability. Additionally, the cause of the inadequate controller performance will be evaluated to determine if any similar controllers could be affected.

#### SIMILAR EVENTS

LER 90-008; Reactor Scram on Low Condenser Vacuum during Initiation of Backwashing

ATTACHMENT 1 TO 9610100154 PAGE 1 OF 1 ATTACHMENT 1 TO 9610100154  
PAGE 1 OF 1

GPU GPU Nuclear, Inc.

NUCLEAR U.S. Route #9 South

Post Office Box 388

Forked River, NJ 08731-0388

Tel 609-971-4000

October 4, 1996

6730-96-2297

U. S. Nuclear Regulatory Commission

Attn.: Document Control Desk

Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station

Docket No. 50-219

Licensee Event Report 96-007

Enclosed is Licensee Event Report 96-007. This event did not impact the health and safety of the public.

If any additional information or assistance is required, please contact

Mr. John Rogers of my staff at 609.971.4893.

Very truly yours,

Michael B. Roche

Vice President and Director

Oyster Creek

MBR/JJR

Enclosure

cc: Oyster Creek NRC Project Manager

Administrator, Region I

Senior Resident Inspector

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